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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,570	07/24/2003	Nozomu Tamoto	240602US0DIV	8107

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EXAMINER	
POULOS, SANDRA K	
ART UNIT	**PAPER NUMBER**
1714	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/625,570	TAMOTO ET AL.	
	Examiner	Art Unit	
	Sandra K. Poulos	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *26 and 27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/985,347.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/24/03; 1/05/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copies have been filed in Application No. 09/985,347, filed on 11/02/01.

Information Disclosure Statement

2. The lists of related applications filled 7/24/03, 4/05/04, 8/26/04, 11/29/04, 12/15/04, 2/17/05, 10/05/05, and 1/05/06 have been considered.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Coating liquid for an electrophotographic photoreceptor and a method of preparation using a ball mill".

4. The disclosure is objected to because of the following informalities: On page 143, line 1, "700 mhKOH/g" should be "700 mgKOH/g".

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

requested in correcting any errors of which applicant may become aware in the specification.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 26-27 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 26 and 51-60 of copending Application No. 10/827,376 (published as US 2004/0197688). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the explanation below.

Copending Application No. 10/827,376 claims a coating liquid for an outermost layer of an electrophotographic photoreceptor comprising a filler, an organic compound

having an acid value of from 10 to 700 mgKOH/g, a binder resin, and plural organic solvents wherein the coating liquid is prepared by mixing the filler, the organic compound, the binder resin, and the plural organic solvents using a ball mill containing alumnia balls. The claims of application 10/827,376 further specify particular types of organic compound whereas the current claims do not. It would have been obvious to one in the art that the current claims encompass the claims of 10/827,376 and therefore are not patentably distinct inventions.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 26 is rejected under 35 U.S.C. 102(b) as being anticipated by Nakao et al (US 4,559,288).

Nakao discloses an electrophotographic photoreceptor with a layer comprising a polymer having an acid value of 10-100 (organic compound) (col 4, lines 17-68; col 5-6;

col 7, lines 1-10), an additional polymer (binder) (col 7, lines 11-36), colloidal silica and/or alumina (filler) (col 7, lines 36-62), and a plurality of solvents (col 9, lines 19-30).

Therefore Nakao anticipates the cited claim.

7. Claim 26 is rejected under 35 U.S.C. 102(e) as being anticipated by Patzschke et al (US 6,329,020).

It is noted that the intended use of "for an outermost layer of an electrophotographic photoreceptor" has not been given patentable weight. Case law holds that "where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation." See *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997).

Patzschke discloses a coating material (abstract) comprising filler such as carbon black (col 20, line 51; col 12, lines 35-50; col 16, line 56), organic additives such as polyacrylate copolymers with an acid number of 60 to 780 (col 13, lines 52-65), and aqueous dispersion of a polymer (col 3-4), and a plurality of solvents (col 13, lines 66-67; col 14, lines 1-9).

Therefore Patzschke anticipates the cited claim.

Claim Rejections - 35 USC § 102/103

8. Claim 27 is rejected under 35 U.S.C. 102(b or e) as anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Nakao et al (US 4,559,288) or Patzschke et al (US 6,329,020).

The discussions with respect to Nakao and Patzschke in paragraphs 6 and 7 above are incorporated herein by reference.

It is noted that claim 27 a product-by-process claim and therefore "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Thus, given that Nakao and Patzschke disclose the presently claimed composition, they anticipate the presently cited claim.

While Nakao and Patzschke do not explicitly disclose a process of mixing the composition using an alumina ball mill, given that both disclose the presently claimed composition, it would have been obvious to one of ordinary skill in the art to obtain the same final product, absent a showing of criticality for the presently claimed process, and thereby arrive at the presently cited claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao et al (US 4,559,288) as applied to claim 26 above, and further in view of Aizawa (US 5,215,843).

The discussion with respect to Nakao in paragraph 6 above is incorporated herein by reference.

Nakao does not expressly disclose using a ball mill.

Aizawa discloses a photoconductor that gives good image quality which has a layer composed of an epoxy resin, a phosphorous powder, and methyl ethyl ketone (col 2; example 1). In example 1 the composition is milled in a ball mill with sintered alumina ball and then coated on an aluminum substrate.

It would have been obvious to one of ordinary skill in the art to use the composition disclosed by Nakao in a ball mill because Aizawa shows success in using a similar composition (both used for electrophotography and contains a filler, resin, and solvent) with the alumina ball mill.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,858,362 discloses a protective layer located overlying the photosensitive layer, wherein an outermost layer of the photoreceptor comprises a filler, a binder resin and an organic compound having an acid value of from 10 to 700 mgKOH/g.

US 2004/0180280 discloses preparing an outermost layer coating liquid comprising a solvent, the filler, the organic compound having an acid value of from 10 to 700 mgKOH/g, a diamine compound and an antioxidant and coating the outermost layer coating liquid followed by drying to form the outermost layer.

US 5,105,222 and US 5,312,709 disclose using ball mills containing alumina balls for electrophotographic compositions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra K. Poulos whose telephone number is (571) 272-6428. The examiner can normally be reached on M-F 7:30-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKP

Sandra K. Poulos
March 4, 2006

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